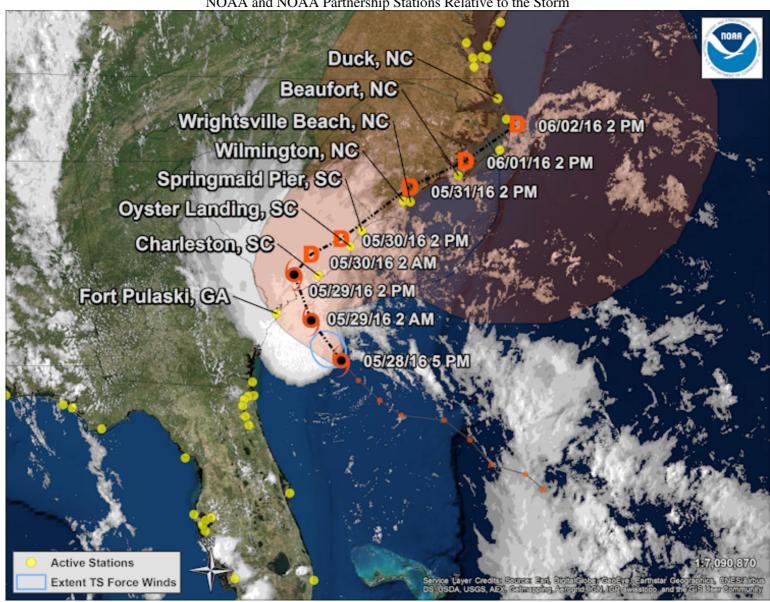




Tropical Storm BONNIE QuickLook Posted: 18:00 EDT 05/28/2016

NOAA and NOAA Partnership Stations Relative to the Storm



### Storm Analysis

As of 05/28/2016 18:00 EDT, water levels from Georgia to Beaufort, NC are slightly elevated and range from 0.25 to 1.5 ft. above normal tide levels. Winds are rising slightly at several stations across the region, with gusts up to 30 kts. Barometric pressure is somewhat steady across the region at this time.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst:CMF

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### SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM BONNIE ADVISORY NUMBER 5 NWS NATIONAL HURRICANE CENTER MIAMI FL 500 PM EDT SAT MAY 28 2016

...DEPRESSION STRENGTHENS INTO TROPICAL STORM BONNIE...

...LOCALLY HEAVY RAINFALL SPREADING ACROSS COASTAL AREAS OF SOUTH CAROLINA...

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY:

None.

#### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

\* Savannah River to Little River Inlet South Carolina

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area, in this case within the next 12 hours.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

### **DISCUSSION AND 48-HOUR OUTLOOK**

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At 500 PM EDT, the center of Tropical Storm Bonnie was located by satellite and NOAA Doppler radars about 120 mi SE of Beaufort South Carolina or about 125 mi SSE of Charleston South Carolina. Bonnie is moving toward the northwest near 10 mph. This general motion, accompanied by a decrease in forward speed, is expected through this evening and on Sunday as the system nears the coast within the warning area.

Maximum sustained winds have increased to near 40 mph with higher gusts. Some additional strengthening is possible tonight as Bonnie moves over the warm waters of the Gulf Stream. Gradual weakening is forecast on Sunday.

Tropical-storm-force winds extend outward up to 60 miles from the center, mainly to the northwest of the center.

The estimated minimum central pressure is 1008 mb.

#### HAZARDS AFFECTING LAND

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WIND: Tropical storm conditions are expected to first reach the coast within the warning area later tonight or early Sunday.

RAINFALL: Bonnie is expected to produce total rainfall accumulations of 1 to 3 inches with maximum totals of 5 inches from eastern South Carolina through southeastern North Carolina.

STORM SURGE: Storm surge inundation of 1 to 2 feet above ground level is possible within the tropical storm warning area during the next high tide on Sunday morning.

SURF: Bonnie is expected to produce life-threatening surf and rip current conditions along portions of the southeastern United States coast through the weekend. Please consult products from your local weather office.

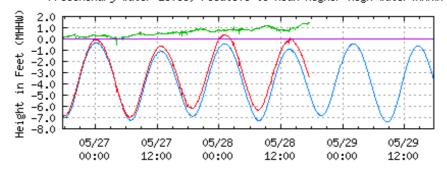
TORNADOES: An isolated tornado or two will be possible late tonight and early Sunday over the immediate coastal region from central South Carolina through southern North Carolina.

Forecaster Stewart

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Fort Pulaski - Water Level, Fort Pulaski - Winds, Charleston - Water Level, Charleston - Winds, Charleston - Barometric, Oyster Landing (N Inlet Estuary) - Water Level, Springmaid Pier - Water Level, Springmaid Pier - Winds, Wilmington - Water Level, Wilmington - Water Level, Wilmington - Water Level, Wilmington - Barometric, Beaufort - Water Level, Beaufort - Winds, Duck - Water Level, Duck - Winds

## NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

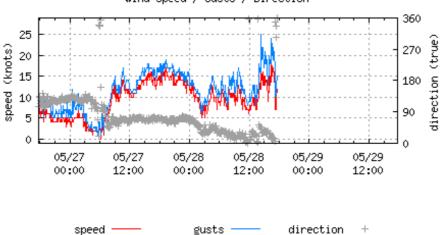


Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -3.60 ft. Predicted: -4.95 ft. Residual: 1.35 ft. Historical Maximum Water Level: Oct 15 1947, 3.40 ft.

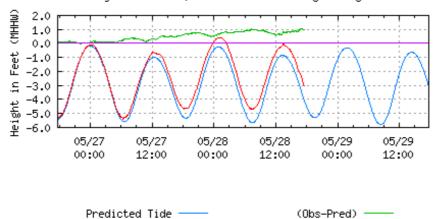
Next High Tide: 05/29/2016 02:06 (EDT), -0.43 ft.

#### NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Wind Speed / Gusts / Direction



Last Observed Sample: 05/28/2016 17:36 (EDT) Wind Speed: 13 knots Gusts: 16 knots Direction: 359° T

# NOAA/NOS/CO-OPS <u>8665530 Charleston, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



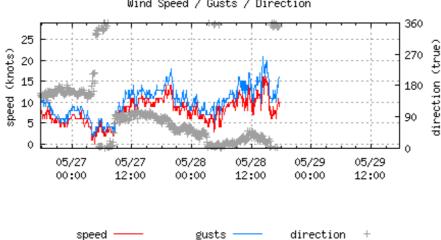
Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -3.16 ft. Predicted: -4.15 ft. Residual: 0.99 ft.

MHHW

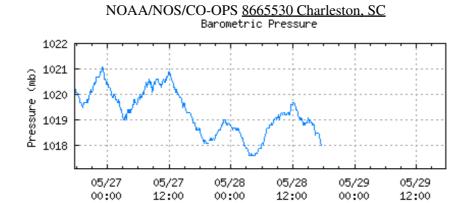
Observed WL

Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 05/29/2016 01:49 (EDT), -0.30 ft.

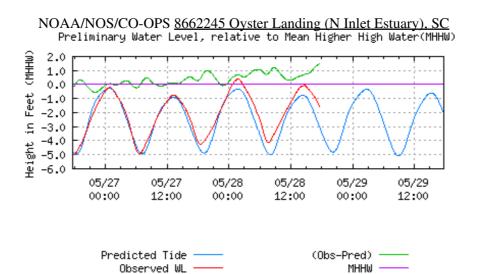
#### NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Wind Speed / <u>Gusts</u> / <u>Direction</u>



Last Observed Sample: 05/28/2016 17:36 (EDT) Wind Speed: 9 knots Gusts: 16 knots Direction: 354° T

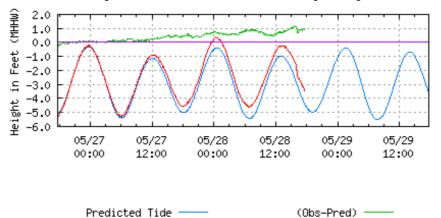


barometric pressure ——
Last Observed Sample: 05/28/2016 17:36 (EDT)
Barometric Pressure: 1018.0 mb



Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -1.58 ft. Predicted: -3.05 ft. Residual: 1.47 ft. Historical Maximum Water Level: Aug 26 2011, 2.40 ft. Next High Tide: 05/29/2016 02:44 (EDT), -0.33 ft.

## NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



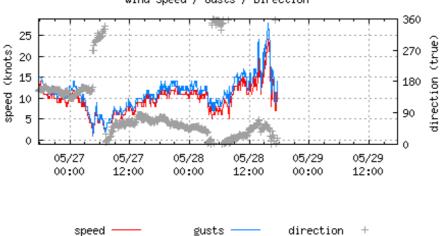
Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -3.48 ft. Predicted: -4.38 ft. Residual: 0.90 ft.

MHHW

Observed WL

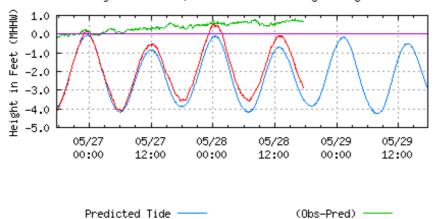
Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 05/29/2016 01:32 (EDT), -0.38 ft.

#### NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 05/28/2016 17:36 (EDT) Wind Speed: 12 knots Gusts: 14 knots Direction: 19° T

### NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



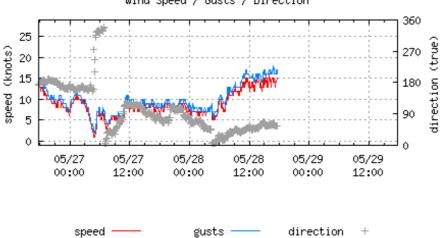
Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -2.85 ft. Predicted: -3.50 ft. Residual: 0.65 ft.

MHHW

Observed WL

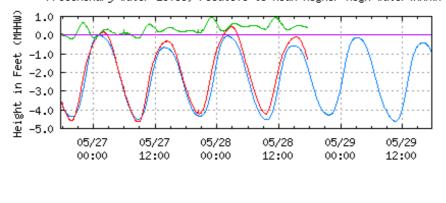
Historical Maximum Water Level: Sep 25 2008, 2.81 ft. Next High Tide: 05/29/2016 01:17 (EDT), -0.17 ft.

#### NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 05/28/2016 17:36 (EDT) Wind Speed: 15 knots Gusts: 17 knots Direction: 56° T

## NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

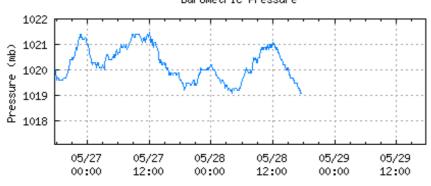


Predicted Tide (Obs-Pred)
Observed WL MHHW

Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -1.31 ft. Predicted: -1.73 ft. Residual: 0.42 ft.

Historical Maximum Water Level: Oct 15 1954, 3.47 ft. Next High Tide: 05/29/2016 03:10 (EDT), -0.13 ft.

#### NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Barometric Pressure

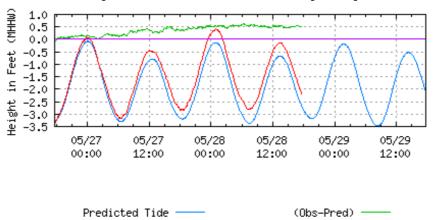


barometric pressure ----

Last Observed Sample: 05/28/2016 17:36 (EDT)

Barometric Pressure: 1019.1 mb

## NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



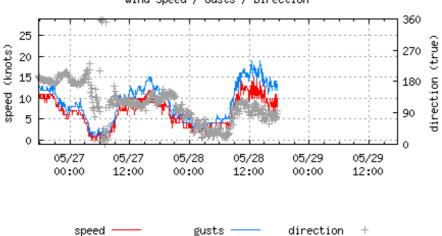
Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -2.18 ft. Predicted: -2.67 ft. Residual: 0.49 ft.

MHHW

Observed WL

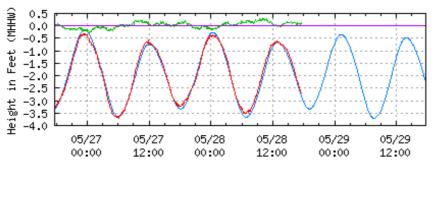
Historical Maximum Water Level: Sep 14 2005, 3.01 ft. Next High Tide: 05/29/2016 01:46 (EDT), -0.19 ft.

### NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 05/28/2016 17:36 (EDT) Wind Speed: 10 knots Gusts: 12 knots Direction: 97° T

## NOAA/NOS/CO-OPS <u>8651370 Duck</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

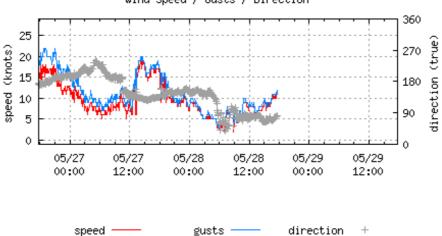


Predicted Tide — (Obs-Pred) — Observed WL — MHHW —

Last Observed Sample: 05/28/2016 17:36 (EDT). Data relative to MHHW Observed: -2.71 ft. Predicted: -2.86 ft. Residual: 0.15 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 05/29/2016 01:17 (EDT), -0.35 ft.

### NOAA/NOS/CO-OPS <u>8651370 Duck</u>, NC Wind Speed / Gusts / Direction



Last Observed Sample: 05/28/2016 17:36 (EDT) Wind Speed: 11 knots Gusts: 11 knots Direction: 81° T

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8670870	Fort Pulaski, GA	05/28/2016 17:36 (EDT)	-3.60 ft	-4.95 ft	1.35 ft	0.36 ft
8665530	Charleston, SC	05/28/2016 17:36 (EDT)	-3.16 ft	-4.15 ft	0.99 ft	0.43 ft
8662245	Oyster Landing (N Inlet Estuary), SC	05/28/2016 17:36 (EDT)	-1.58 ft	-3.05 ft	1.47 ft	0.40 ft
8661070	Springmaid Pier, SC	05/28/2016 17:36 (EDT)	-3.48 ft	-4.38 ft	0.90 ft	0.38 ft
8658163	Wrightsville Beach, NC	05/28/2016 17:36 (EDT)	-2.85 ft	-3.50 ft	0.65 ft	0.55 ft
8658120	Wilmington, NC	05/28/2016 17:36 (EDT)	-1.31 ft	-1.73 ft	0.42 ft	0.44 ft
8656483	Beaufort, NC	05/28/2016 17:36 (EDT)	-2.18 ft	-2.67 ft	0.49 ft	0.42 ft
8651370	Duck, NC	05/28/2016 17:36 (EDT)	-2.71 ft	-2.86 ft	0.15 ft	-0.37 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce